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ABSTRACT

The Title I math program in Des Moines served 1483 students in grades 1-8, during the school year 1980-81. During this same year, the elementary program was identified by the National Dissemination Review Board as an exemplary program, indicating that it is effective and able to be replicated in other districts. The program had an impact on students' academic achievement, as evidenced by the improvement in average percentile rank from fall to spring. All grades except the fourth surpassed the established criteria. Secondary students indicated a more positive attitude toward learning at the end of the school year, as measured on an attitude instrument. They also had a better attendance rate than non-Title I students and completed the minimum required number of individual contracts. The elementary staff was successful in making personal contacts with parents the first semester. Secondary teachers did not achieve the objective but they did improve the percentage of parent contacts as compared with the previous year. Finally, parents indicated a favorable attitude toward the Title I program. (Author/CMG)

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REPORT OF EVALUATION
TITLE I MATHEMATICS PROGRAM
1980-81

Department of Evaluation and Research
Des Moines Independent Community School District
1300 Grand Avenue
Des Moines, Iowa 50307

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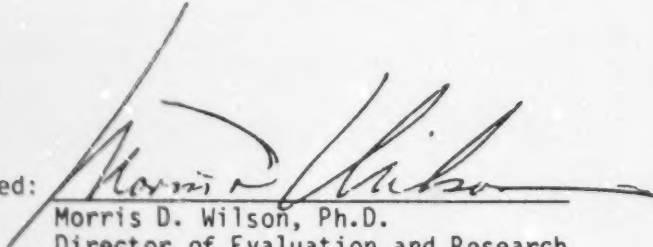
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Approved: 

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Director of Evaluation and Research

August 24, 1981

DES MOINES INDEPENDENT COMMUNITY SCHOOL DISTRICT
DEPARTMENT OF EVALUATION AND RESEARCH
EVALUATION ABSTRACT

August 24, 1981

PROJECT TITLE: Title I Mathematics Program
Kathleen Bullington, Elementary Coordinator
Wanda Everage, Secondary Coordinator

STAFF: 1.25 - Coordinators
35.25 - Resource Teachers
3.5 - Educational Aide
1.25 - Secretary

OPERATIONAL SITES: ELEMENTARY SCHOOLS: All Saints, Brooks, Casady,
Dunlap, Edmunds, Findley, Garton, Jefferson, King,
Longfellow, Lucas, Madison, McKinley, Mitchell,
Monroe, Moulton, Oak Park, Perkins, Phillips,
St. Anthony, Holy Family (St. John's, St. Peter's,
and Visitation), Wallace
JUNIOR HIGH SCHOOLS: Callanan, Harding, Hiatt,
and Weeks

VOLUNTARY TRANSFER
PROGRAM SITES: Moore

POPULATION SERVED: Public school students (1-6): 1,160
Public school students (7-8): 207
Nonpublic school students (1-6): 102
Nonpublic school students (7-8): 14
Total students (1-8): 1,483

FUNDING: Source: Title I, Elementary and Secondary Education Act
Amount budgeted: \$784,271
Amount expended: 777,842
Cost per pupil: 525

COMMENTS

The purpose of the Title I Mathematics program is to provide a compensatory mathematics program to all students who qualify under the guidelines of Title I of the Elementary and Secondary Educational Act of 1965. During the 1980-81 school year the Title I Mathematics staff identified and provided services to 1,483 students in the Des Moines public and private schools at a cost of \$777,842.

During the 1980-81 school year the elementary program was identified by the National Dissemination Review Board as an exemplary program. This status indicates that the program is recognized as proven effective and able to be replicated in other districts.

The Title I program had an impact on academic achievement of the program students (grades two through eight) as evidenced by the improvement in average percentile rank from fall to spring. Also, the magnitude of the achievement gains was greater than the goal as established by the Title I staff at all grades except the fourth grade.

The secondary Title I students indicated a more positive attitude toward learning at the end of the school year on an attitude instrument. They also had a better attendance rate than non-Title I students and completed the minimum required number of individual contracts.

The elementary staff was successful in making personal contacts with parents the first semester. The secondary teachers did not achieve the objective but they did improve the percentage of parent contacts made from the previous year. Parents indicated a favorable attitude toward the Title I program.

The Title I Mathematics proved to be an effective program that improved student achievement. However, there were areas of the program where student and teacher performance did not meet the criteria established by the Title I staff. The objectives that were not achieved provide direction to the Title I staff where the program procedures and/or goals need to be reviewed.

During the 1980-81 school year the Title I program will be using the Iowa Tests of Basic Skills to measure student achievement. Since this is a change in tests, it would be inappropriate to use test data from previous years to establish criteria for the 1981-82 school year.

RECOMMENDATIONS

1. The Title I staff should review the cluster analysis results to determine the skill areas where improvement has occurred and where improvement needs to occur.
2. The Title I staff should continue student performance objective III A 1 indicating program effect for the 1981-82 school year. Performance objectives with achievement goals should be established for the 1982-83 school year when the 1981-82 results are available. This recommendation results from the change in nationally normed test used to measure program effects.
3. The Title I staff should develop a uniform system to identify the students new to the program. This is to facilitate the tabulation of data for Objective IV B 2, 3 and 4 (parent contacts).

PROGRAM DESCRIPTION

Title I of the Elementary and Secondary Education Act (ESEA) of 1965 provides financial assistance to local education agencies for programs to meet the special educational needs of educationally deprived children. Children are eligible for the program if they come from areas with high concentrations of low income families and their academic performance is below acceptable levels.

The Des Moines district, utilizing Title I funds, initiated a supplementary reading program during the 1965-66 school year and a supplementary mathematics program during the 1972-73 school year. The impetus for the programs was that there were a significant number of students performing below desired levels on the Iowa Tests of Basic Skills.

In February, 1981, the National Dissemination Review Board awarded exemplary status to the Des Moines Title I Mathematics program (grades 2-6). This status indicates the program was effective in providing compensatory mathematics services and could be used as a model for other school districts to develop similar programs.

During the 1980-81 school year, the district employed a fulltime equivalent staff of 30.25 teachers, 3.5 associates, and 1.25 coordinators to provide Title I mathematics services for grades 1-8. The program was located in 21 public elementary schools, four junior high schools and five nonpublic schools. Grades served in individual buildings varied according to available space and the organization of the school.

Some students resided in Title I identified attendance areas and participated in the district's Voluntary Transfer Program (VTP). In order that these students would not be deprived of Title I services, the mathematics program was extended to Moore Elementary School. The teacher assigned to this building was funded from Title I and district funds.

The dual funding allowed the teacher to serve both VTP students and neighborhood students to prevent a resegregation of the VTP students. Voluntary Transfer students, that qualified for Title I like services, yet were attending non-Title I schools, were served by the ESAA Title VI program.

Student Selection

Schools were identified for the Title I services by the percentage of students from low income families. Priorities for funding were given to schools with the highest percentage of low income students. Estimates of low income were based on the percentage of students eligible for free and reduced lunches. Once a school was identified for Title I services, student eligibility was based on academic need.

Students were selected under a two phase process. First, students were identified according to their performance on the district's objective based mathematics tests. Students with the lowest scores were selected first until the scores reached a predetermined criteria or the space allocation for the teacher was filled. Secondly, the classroom teacher may have recommended that a student needed additional help. If the student scored above the criteria used for the initial screening, the Key Math test was administered to determine the students achievement level. This test was also used to determine which students scoring at or near the criteria used in the first phase of screening were in greatest need.

Title I regulations stipulate conditions under which students could not be served. These conditions for not selecting students are listed in the Needs Assessment Checklist. Additionally, priorities were established by grade level. Students in the elementary program were selected according to the following order: 2-3-4-1-5-6. In the secondary program the grade order was 7-8.

Major Methods and Activities in the Instructional Program

The basic philosophy underlying the project was that Title I students are capable of learning. The Title I staff was responsible for assessing each student's weaknesses and providing remedial instruction in those areas. Weaknesses (and strengths) were identified from the districts mathematics objective based tests, which are based on the district's mathematics objectives for grades K-8. Each student had an educational plan that was used to guide the students instruction and to provide a continuous record of concepts introduced and mastered by the student. The educational plan stayed with the student throughout his or her involvement in the Title I Mathematics programs.

The primary method of instruction used manipulative devices (blocks, beads, coins, etc.) to develop concepts. As the students recorded the results of their experiments with the manipulatives, they discovered arithmetical algorithms. Games and other activities were used to reinforce the learned concepts.

Organization for Instruction

Title I Mathematics teachers worked daily with the identified Title I students for approximately one-half of the student's regularly scheduled mathematics class. The actual amount of time the Title I teachers instructed each group ranged from 15 minutes to 45 minutes, depending upon grade level and building. In some cases, Title I teachers met with students for the entire math period on an alternating day basis. In schools where scheduling permitted, small group instruction was carried out by the Title I teachers in the learner's classroom, however, in most schools children were served outside of the classroom.

The maximum number of students served by a teacher at the elementary level was 40 with a student/teacher ratio ranging from 1:1 for a student

requiring special help to a 6:1 ratio for students with similar needs. The average student/teacher ratio was 5:1 per session of instruction. At the secondary level the student/teacher ratio ranged from 3:1 to 8:1 with an average ratio of 6:1.

Parent Contact and Participation

Title I regulations require that parent advisory councils be formed at buildings with two or more full time equivalent Title I staff persons. The councils membership consists of parents of Title I children, teachers (Title I and classroom), and other individuals in the community. All members of the council are elected. The council provides a mechanism to disseminate copies of the Title I regulations, program proposals, program evaluations, and information about program learning strategies. The councils also provide a means for parents to make comments and suggestions about the Title I program.

Parents were also involved by the Title I staff through personal contacts. The program teachers visited homes, wrote letters and made telephone calls so that parents were aware of the Title I program and learned of their children's performance in the program.

BUDGET AND EXPENDITURES

Figure I lists the budgeted and expended amounts for the Title I Mathematics project for the fiscal year 1981. The figures are summarized from data provided by the Title I Office (see Appendix A).

Figure I
Title I Mathematics Project
Budget and Expenditures

	Budget	Expenditures ^a
Administration		
Professional Salaries	\$ 16,139	\$ 16,139
Classified Salaries	6,748	6,748
Parent Advisory	6,251	6,876
Other (travel, printing, etc.)	3,104	2,448
Instructional		
Elementary		
Professional Salaries	503,077	503,077
Classified Personnel	10,446	10,446
Substitutes	5,000	5,331
Other (telephone, mileage, supplies, etc.)	13,600	8,709
Secondary		
Professional Salaries	66,398	66,398
Classified Personnel	11,824	11,824
Community Resources	750	619
Substitutes	925	105
Other (telephone, mileage, supplies, etc.)	3,305	2,418
Evaluation		
Professional Salaries	9,582	9,582
Other (data processing, printing, supplies, etc.)	6,637	6,637
Additional Costs		
Fixed Charges (Social Security, retirement, etc.)	102,184	102,184
Indirect Costs (administrative support charges)	18,301	18,301
TOTALS	\$784,271	\$777,842

^aAccrued expenditures at the end of June, 1981. Actual expenditures will not be available until October, 1981.

RESULTS OF EVALUATION

The evaluation of the Title I Mathematics program was based on performance (learning) and process (activity) objectives (see Appendix B) selected from the project proposal submitted to the Department of Public Instruction. The remaining objectives were monitored by the Title I project coordinators.

An accountability file was prepared for the project to facilitate the collection and storage of supportive data for each objective. A "suspense" file was used to monitor the submission and receipt of such data and monthly verification of receipts was made. The data collection system provided the project management with formative evaluation information throughout the school year.

Administration

- II B 1. By November 28, 1980, the principal of each elementary school served by the project shall monitor the joint activities of the project teachers and classroom teachers. He/she will visit classrooms to assure that Title I students are receiving direct instruction in mathematics from the classroom teacher as well as from the Title I teacher.

Documentation: Report of Supervision of the Title I program submitted by December 5, 1980, to the Executive Director of Elementary Education (public) or the Superintendent Des Moines Diocese (nonpublic) via the Elementary Title I Mathematics Coordinator.

Elementary principals of the Title I schools (public and nonpublic) completed Report of Supervision forms signifying that they observed both Title I and classroom teachers instructing Title I students. The purpose of the observation was to determine that Title I service "supplements" rather than "supplants" regular classroom instruction.

The deadline for principals to make the observation was November 28. All but one principal completed the observations by that date.

Student Performance Objectives

- III A 1. At the end of the instruction year, Title I students (grades 2 through 8) enrolled in the mathematics program for a minimum of four months will demonstrate an increase in the mean percentile rank from pre to posttest on the mathematics test of the Metropolitan Achievement Survey Battery (1978).

Documentation: Metropolitan Achievement Test scores submitted to the Director of Evaluation at the end of the project year.

Two measures are needed to assess the impact of an educational program on student achievement: an observed achievement performance and an expected achievement performance. If actual performance is greater than the expected performance, then there has been an achievement "gain" that is attributed to the program.

The observed student performance for Title I Mathematics students was the mean posttest score (from the spring administration) of the Metropolitan Achievement Test, mathematics subtest, converted to a nationally normed percentile rank. The expected student performance was the mean pretest score (from the fall administration) also converted to a nationally normed percentile rank. The assumption was that without an intervention program (such as Title I) the ranking of the Title I students relative to a national norm would not appreciably change from pretest to posttest. Any change in ranking was interpreted to mean that the program has a positive effect on student achievement that would not have occurred without a program.

As can be seen from Table 1, there was an increase in percentile rank from fall to spring at all grade levels. The increase indicated that the students had a greater achievement "gain" than expected. The objective was achieved.

The pre and posttest percentile ranks for each school are listed in Appendix C. Caution must be used when comparing "gains." An increase from the 20th to the 24th percentile rank does not mean the same as an increase from the 10th to the 14th percentile rank despite the differences being the same. The significance of any change in percentile ranks is that a change exists. The magnitude of the change is measured by scales other than percentile ranks (see Objective III A 3 and 4).

TABLE 1
Mathematics Survey Test
Metropolitan Achievement Test
Pre and Post Percentile Ranks

Grade	n ^a	Pre	Post	Change (Post - Pre)
2	205	18	40	22
3	204	22	38	16
4	219	24	34	10
5	138	22	34	12
6	125	26	40	14
7	120	18	30	12
8	38	12	32	20

^aThe number of students represents those with both pre and posttests.

III A 2. At the end of the instruction year, first grade students enrolled in the mathematics program at least four months will attain scores on the mathematics test of the Metropolitan Achievement Survey Battery such that:

- (a) no more than 20 percent of the students will achieve a percentile rank of less than 22;
- (b) at least 25 percent of the students will achieve a percentile rank of 55 or greater;
- (c) the average raw score will be equivalent to at least the 40th percentile.

Documentation: Metropolitan Achievement Test scores submitted to the Director of Evaluation at the end of the project year.

Pretest scores are not collected at the first grade level, thus an estimation of expected student performance is not possible as was with grades two through eight. However, "desired" performance levels (or criteria) can be established. In this case, student performance during the 1978-79 and 1979-80 school year served as guidelines.

The objective was achieved. Of the 130 first graders that took the test, 12.3 percent scored below the 22nd percentile. The average score was equivalent to the 46th percentile rank and 24.4 percent of the students scored higher than the 50th percentile rank.

III A 3. At the end of the instruction year students (grades two through six) enrolled in the mathematics program for at least four months will demonstrate a proficiency on the mathematics test of the Metropolitan Achievement Survey Battery such that:

- (a) no more than 25 percent of the students will show an NCE (Normal Curve Equivalent) change of less than 1.0;
- (b) the average gain by grade in NCEs will be at least 7.0.

Documentation: Metropolitan Achievement Test scores submitted to the Director of Evaluation.

III A 4. At the end of the instruction year students (grades seven through eight) enrolled in the mathematics program for at least four months will demonstrate a proficiency on the mathematics test of the Metropolitan Achievement Survey Battery such that:

- (a) no more than 25 percent of the students will show an NCE change of less than 1.0;
- (b) the average gain by grade in NCEs will be at least 7.0.

Documentation: Metropolitan Achievement Test scores submitted to the Director of Evaluation.

Normal Curve Equivalents (NCEs) is one of several measurement scales used in testing of student achievement. The advantage of NCEs is that the scale has the same end and mid points as the percentile rank scale (1, 99, 50 respectively), yet has arithmetic properties. This means that

the difference between 20 and 24 NCEs has the same meaning as a difference between 10 and 14 NCEs. With this scale property, the Title I staff is then able to set goals determining the amount of achievement that is to occur.

Table 2 shows the results for the 1979-80 and 1980-81 school years. Part a of the objectives was achieved except for fourth, fifth and seventh grade. Part b of the objectives was achieved except for fourth grade.

TABLE 2
NCE Gains for the
Mathematics Survey Battery

Grade	n	1979-80		n	1980-81	
		NCE Diff. ≤ 1 (%)	NCE ^a Diff.		NCE Diff. ≤ 1 (%)	NCE Diff.
2	197	15.2	16.1	205	18.5	14.0
3	178	12.9	12.9	204	20.6	9.9
4	180	31.3	5.3	219	28.8	6.2
5	132	21.2	9.9	138	26.1	7.6
6	130	18.5	10.2	125	15.2	8.2
7	57	36.8	5.3	120	28.3	8.3
8	41	24.4	8.6	38	13.2	14.8

^a Difference between pre and posttest average NCE.

III A 5. At the end of the instruction year, students (grades 2 through 8) enrolled in the mathematics program for at least 4 months will achieve an average raw score equivalent to at least the 30th percentile.

Documentation: Metropolitan Achievement Test scores submitted to the Director of Evaluation at the end of the project year.

The purpose of this objective was to provide end-of-the-year goals for achievement. This type of goal complements the objectives that specify criteria for gains. The criterion for this objective was based on the performance of the 1979-80 students and it is also near the lower

boundary of what is considered by the publishers of the Metropolitan Achievement Test to be the average range for percentile ranks (23rd percentile to the 76th percentile).

As can be seen from Table 1, this objective was achieved at all levels. This is an improvement from the 1979-80 school year as the objective was not achieved by the eighth grade (28th percentile).

- III A 6. Students (grades 1 through 8) enrolled in the program a minimum of four months will exhibit knowledge of mathematics concepts and computation by mastering 80 percent of the objectives presented to them.

Documentation: a completed Student Record Folder for each student served on file in each building and the Semester Summary Report submitted to the project coordinators at the end of each semester.

The Title I Mathematics teacher, using objectives based tests, determined each child's deficiency in mathematics. Also, the Title I teacher discussed with the classroom teacher the topics taught in the classroom before planning each child's daily activities in the Title I class. This facilitated a coordinated effort in providing a supplementary type of instruction between the classroom teacher and the Title I teacher.

Table 3 shows the average number of mathematics objectives introduced by the Title I teacher and the percentage passed by the Title I students. The number of objectives introduced varied from student to student and grade to grade due to the Title I goal of meeting individual needs of students. The objective was achieved.

TABLE 3
Composite Data

Grade	n	Average Number of Objectives Per Pupil	Percent Attained
1	133	36	84
2	233	46	87
3	226	50	89
4	239	47	86
5	154	47	86
6	150	47	87
7	156	36	91
8	45	48	93
1-8	1336	45	87

Cluster Analysis for Grades 2-8

The items used in standardized tests (such as the Metropolitan Achievement Mathematics Test) are based on learning objectives. In turn these objectives are grouped into clusters that describe some component of mathematical skills. The Metropolitan Achievement Mathematics Tests group test items into the following clusters:

- (a) Numeration
- (b) Geometry and Measurement
- (c) Problem Solving
- (d) Operations: The Whole Numbers
- (e) Operations: Laws and Properties (Laws of Addition, Commutative Property, etc.)
- (f) Operation with Decimals and Fractions (grades five through eight)
- (g) Graphs and Statistics (grades five through eight)

By analyzing student performance in each cluster, more is known about the strengths and weaknesses of the students in the program.

As can be seen from Table 4, there was improvement in the average number of correct items from pre to posttest for each of the clusters. The Title I staff will have to determine in what areas weaknesses occur

TABLE 4
Pre and Posttest Cluster Results - Math

Cluster	# of Items	4th		# of Items	5th		# of Items	6th		# of Items	7th		# of Items	8th	
		Pre	Post		Pre	Post		Pre	Post		Pre	Post		Pre	Post
Numeration	10	5.4	6.6	9	3.3	4.8	9	4.3	5.8	8	2.5	3.4	8	2.6	3.8
Geometry and Measurement	13	6.2	7.5	9	2.9	4.2	9	3.6	4.6	8	2.1	2.9	8	2.3	3.3
Problem Solving	10	4.7	6.0	8	3.2	4.3	8	4.0	5.1	6	2.8	3.3	6	3.0	3.5
Operations: Whole Numbers	11	5.3	8.0	13	4.8	8.0	13	7.0	9.3	8	4.2	5.8	8	4.9	6.4
Operations: Laws and Properties	6	2.4	3.6	3	1.2	1.5	3	1.5	1.8	4	1.4	1.7	3	1.5	1.9
Operations: Fractions and Decimals	-	-	-	5	0.9	1.9	5	1.3	2.6	10	2.1	3.7	10	2.4	4.8
Graphs and Statistics	-	-	-	3	0.8	0.9	3	1.0	1.2	6	2.8	3.4	6	3.1	3.6
Total	50	23.9	31.9	50	16.9	25.6	50	22.6	30.2	50	17.9	24.2	50	20.1	27.2

Note: Pre and post values are the average number of items correct.

by reviewing the objectives of the Metropolitan Achievement Test with the mathematics objectives used in the Title I program.

- III A 7. By the end of the project year, public school students (grades seven through eight) enrolled in the program for a minimum of four months will display a more positive attitude toward learning than they displayed at the time of their entrance into the program.

Documentation: pre and postattitude toward learning inventory submitted to the Director of Evaluation at the end of the project year.

Table 5 shows the results of the pre and postadministration of the Self-Anchoring Attitude Toward Learning Scale (see Appendix D for a description and copy of the scale) developed by the staff of the Heartland Education Agency. The instrument was designed so that each respondent establishes endpoints on the attitude scale that were unique to that individual. The aggregate gain was positive except for the students at Hiatt. The objective was achieved.

TABLE 5
Attitude Toward Learning
Survey Results

School	n	Pre Mean	Post Mean	Gain
Callanan	32	5.88	7.25	1.37
Harding ^a	--	--	--	--
Hiatt	35	6.57	6.37	-0.20
Weeks	28	5.68	6.46	0.78
All Schools	95	6.07	6.69	0.62

^aNo data was received from Harding.

- III A 8. During the project year, public school students (grades seven through 8) enrolled in the program for a minimum of four months will respond positively to the program as indicated by their rate of attendance being equal to or greater than that of all students in the same schools.

Documentation: Semester Summary Report submitted with the May accountability data to the Secondary Coordinator and Director of Evaluation.

The average daily attendance rates for Title I students and non-Title I students are found in Table 6. Callanan and Hiatt did not achieve the objective. However, since the Title I average was greater than non-Title I, the objective was achieved.

TABLE 6
Secondary School Attendance Results

School	n	Title I Students Attendance Percent	n	All Students Attendance Percent
Callanan	38	91.7	501	92.6
Harding	66	90.8	542	90.6
Hiatt	38	89.8	610	91.4
Weeks	28	90.4	823	89.4
All Schools	170	90.9	2476	90.8

III A 9. At the end of the project year, 80 percent of public school students (grades seven through eight) enrolled in the program a minimum of four months will have written with the staff and attained at least one goal related to math assignments and/or behavioral changes.

Documentation: list of students with the number and kinds of goals attained, submitted to the Secondary Coordinator and Director of Evaluation at the end of the project year.

Most of the contingency contracts required the students to finish assignments, improve marks (grades) in other subject areas, reduce absences and tardiness and complete extra assignments. Rewards for successfully completing the assignments or the contracts were math books and games, school supplies and field trips.

This objective was achieved at each of the schools second semester and at each school, except for Weeks (61 percent of the contracts were completed), first semester. Since only one contract was required for the year, the objective was achieved.

Summary of Student Performance Objectives

The Title I students (grades two through eight) had achievement gains greater than expected at the end of the 1980-81 school year. This indicated that the Title I Mathematics program has a positive impact on achievement of Title I student's. The magnitude of the achievement gains was greater than the established criteria except for the fourth grade. The students also achieved the end-of-the-year goals of having an average score of at least the 30th percentile. This gives added indication that the Title I program was successful in improving student achievement as these students were chosen for the program due to their being below average or performing below district level in mathematics.

The secondary students indicated a positive attitude toward learning on the Self-Anchoring Attitude Toward Learning Scale. They also demonstrated a positive attitude towards school by having an average daily attendance equal to or exceeding the non-Title I students' rate.

During the 1981-82 school year, the Title I program will start using the Iowa Tests of Basic Skills to measure student achievement. Since there will be a change in tests, it would be difficult to establish criteria for achievement gains based on past years' data. For this reason, this department is not making any recommendation on student achievement.

Instructional Staff

- IV B 1. The project teacher(s) in each building served by the program will identify eligible student participants by September 12, 1980.

Documentation: class lists of identified students and the needs assessment checklist submitted to the project coordinator with the September accountability data.

The student selection process is described in the Project Description section of this report. Available documentation indicated that the Title I student selection took place by the desired date. The objective was achieved.

Table 7 shows the number of students that were identified throughout 1980. As students left the program - transfer to another school is the most common reason - additional students are served.

TABLE 7
Number of Students Identified For Title I Math
By September 12, 1980

School	Grade								Total
	1	2	3	4	5	6	7	8	
All Saints	2	2	0	6	2	2			14
Brooks	13	19	17	24	12	11			96
Casady	13	21	18						52
Dunlap	6	10	9	11	5	3			44
Edmunds				38	31	33			102
Findley	0	17	13	9	8	7			54
Garton	12	13	16	16	19	29			105
Jefferson	0	51	17						68
King	13	38	29						80
Longfellow	7	12	12	6	4	6			47
Lucas	13	8	6	22	0	0			49
Madison	9	13	6	11	4	0			43
McKinley	4	1	10	5	0	5			25
Mitchell	11	7	15	9					42
Monroe				17	18	16			51
Moore	3	5	1	4	0	0			13
Moulton	19	38	27	22	21	22			149
Oak Park	3	11	13	9	9	0			45
Perkins				25	24	16			65
Phillips	11	10	9	6	2	5			43
St. Anthony	0	2	5	6	0	1	3	0	17
St. John	5	9	10	8	9				41
St. Peter	2	4	6	5	3				20
Visitation						9	10	2	21
Wallace	6	6	9	8	11	8			48
Willard	8	9	13	22					52
Callanan							31	16	47
Harding							63	33	96
Hiatt							37	10	47
Weeks						12	32	0	44
Total	160	306	261	289	182	185	176	61	1620

- IV B 2. By the end of the first semester, project teachers will have personal contact with parents of at least 80 percent of the total number of students (grades 1 through 6) enrolled in the program for a minimum of 20 days. The parents of 65 percent of students new to the program will be visited in their homes.

Documentation: parent contact report on the semester summary submitted to the appropriate project coordinator, the building principal and the Department of Evaluation with the January accountability data.

- IV B 3. By the end of the first semester, project teachers will have personal contact with parents of at least 65 percent of the total number of students (grades 7 through 8) enrolled in the program for a minimum of 20 days. The parents of 25 percent of students new to the program will be visited in their homes.

Documentation: parent contact report on the semester summary submitted to the appropriate project coordinator, the building principal and the Department of Evaluation with the January accountability data.

- IV B 4. By the end of the second semester each project teacher will have had personal conferences (at home, school, or by telephone) with the parent(s) of at least 80 percent of the total number (grades 1 through 8) of students whom he/she has served during the second semester.

Documentation: parent contact report on the semester summary report submitted to the appropriate project coordinator, the building principal and the Department of Evaluation with the May accountability data.

Title I teachers used a half day a week to visit parents of Title I students about the program and the progress of students. The varying criteria between grade levels and between semester reflects a priority of visiting the homes of new students first semester and maintaining personal contact second semester. Table 8 shows the first and second semester results.

One criteria of Objectives IV B 2 and 3 was to concentrate the home visits on parents of new students. Unfortunately, the documentation submitted to this department was not always clear as to which students were

new to the program. Thus, the data on home visits is a percentage of all parent contacts instead of contacts with new parents. It is recommended that a uniform method of identifying new students be adopted by the program.

Objective IV B 4 was achieved at the elementary level. The secondary performance was not at the desired level, however, there has been an improvement from the 1979-80 year where the second semester percentage of parent contacts was 51 percent.

TABLE 8
Parent Contacts by Semester

Grades	First Semester			Grade	Second Semester	
	Number of Students	Percent of Personal Contacts	Percent of Home Visits		Number of Students	Percent of Personal Contacts
1-6	1224	81	62	1-6	1195	85
7-8	206	54	40	7-8	198	74
Total (1-8)	1430	77	59	Total (1-8)	1393	84

VII A 5. Near the end of the project year a 10 percent random sample of parents of identified elementary students will respond positively to the project activities.

Documentation: a summary of responses obtained by the project coordinator on the parent opinionnaire.

The Title I staff decided that all parents of the program should be surveyed instead of a sample. Questionnaires were carried home by students and returned to the Title I office using an addressed, stamped envelope.

Figure 2 shows the items and response percentages. Since all of the items were reacted to favorably (the "yes's" ranged from 64 percent to 87 percent) the objective was achieved.

FIGURE 2

Title I Parent Survey

	YES	NO	NO OPINION
I. Parent/Teacher personal contact			
A. Home visits			
1. Home visits made by the Title I teacher gave me useful information about the Title I program.	77.3	10.5	12.3
2. Home visits made by the Title I teacher gave me useful information about my child.	76.3	10.5	13.2
3. Home visits provide an opportunity for my child's teacher and me to openly discuss the Title I program.	76.9	8.6	14.5
B. Conferences			
1. Scheduled school conferences with the Title I teacher are helpful to me.	87.4	5.2	7.4
2. Title I sponsored activities at the school have improved communication between home and the school.	63.3	10.5	26.2
3. Telephone calls and letters received from Title I teachers gave me information about my child's progress.	82.3	8.6	9.1
II. Information			
A. Title I was explained to my satisfaction when my child was selected to be in the program.	84.0	12.6	3.4
B. I received the Title I brochure and/or newsletters.	85.7	11.4	3.0
C. The Title I brochure provides information about how the Title I program operates.	81.6	6.4	12.0
D. The newsletter <u>Close Up on Learning</u> provides information about Title I activities at the different schools.	82.2	3.9	13.9
III. Parent Council			
A. The school advisory council(s) provide an opportunity for members and community persons to receive important information about the rules and regulations concerning Title I.	63.6	5.6	30.7
B. The school advisory council(s) organizations provide the opportunity for members to express their concerns about the Title I program(s).	67.4	3.5	29.1

SUMMARY AND RECOMMENDATIONS

Summary

The purpose of the Title I Mathematics program is to provide a compensatory mathematics program to all students who qualify under the guidelines of Title I of the Elementary and Secondary Educational Act of 1965. During the 1980-81 school year the Title I Mathematics staff identified and provided services to 1,483 students in the Des Moines public and private schools at a cost of \$777,842.

During the 1980-81 school year the elementary program was identified by the National Dissemination Review Board as an exemplary program. This status indicates that the program is recognized as proven effective and able to be replicated in other districts.

The Title I program had an impact on academic achievement of the program students (grades two through eight) as evidenced by the improvement in average percentile rank from fall to spring. Also, the magnitude of the achievement gains was greater than the goal as established by the Title I staff at all grades except the fourth grade.

The secondary Title I students indicated a more positive attitude toward learning at the end of the school year on an attitude instrument. They also had a better attendance rate than non-Title I students and completed the minimum required number of individual contracts.

The elementary staff was successful in making personal contacts with parents the first semester. The secondary teachers did not achieve the objective but they did improve the percentage of parent contacts made from the previous year. Parents indicated a favorable attitude toward the Title I program.

The Title I Mathematics proved to be an effective program that improved student achievement. However, there were areas of the program

where student and teacher performance did not meet the criteria established by the Title I staff. The objectives that were not achieved provide direction to the Title I staff where the program procedures and/or goals need to be reviewed.

During the 1980-81 school year the Title I program will be using the Iowa Tests of Basic Skills to measure student achievement. Since this is a change in tests, it would be inappropriate to use test data from previous years to establish criteria for the 1981-82 school year.

Recommendations

1. The Title I staff should review the cluster analysis results to determine the skill areas where improvement has occurred and where improvement needs to occur.
2. The Title I staff should continue student performance objective III A 1 indicating program effect for the 1981-82 school year. Performance objectives with achievement goals should be established for the 1982-83 school year when the 1981-82 results are available. This recommendation results from the change in nationally normed test used to measure program effects.
3. The Title I staff should develop a uniform system to identify the students new to the program. This is to facilitate the tabulation of data for Objective IV B 2, 3 and 4 (parent contacts).

APPENDIX A
Title I Mathematics Program
Budget Expenditures

BUDGET EXPENDITURES

Title I Math Project

	<u>Budgeted</u>	<u>Expended*</u>
Instructional Costs		
<u>Professional salaries</u>		
Elementary teachers and coordinator	503,077	503,077
Secondary teachers and coordinator	66,398	66,398
Elementary substitutes	5,000	5,331
Secondary substitutes	925	105
<u>Classified salaries</u>		
Elementary secretary and associates	10,446	10,446
Secondary secretary and associates	11,824	11,824
<u>Fixed charges</u>		
Elementary 88,729	102,184	102,184
Secondary 13,455		
<u>Professional meetings</u>		
Elementary	3,500	1,450
Secondary	975	748
<u>Mileage</u>		
Elementary	1,370	456
Secondary	280	173
<u>Supplies and materials</u>		
Elementary	7,920	6,200
Secondary	1,625	1,351
<u>Equipment</u>		
Elementary	250	176
<u>Telephone</u>		
Elementary	560	427
Secondary	140	106
<u>Transportation</u>		
Secondary	285	40
<u>Community Resources</u>		
Secondary	750	619
<u>General Administrative costs</u>		
Professional salaries	16,139	16,139
Classified salaries	6,748	6,748
Travel	960	937
Office expenses	1,184	747
Printing	480	382
Dissemination	480	382

Title I Math

Evaluation costs

Professional salaries	9,582	9,582
Travel	557	557
Materials and supplies	3,040	3,040
Data Processing	3,040	3,040

Parent Activities

6,251	6,876
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Indirect costs

18,301	18,301
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784,271	777,842

* As of June, 1981

A P P E N D I X B

Performance and Process Objectives

SECTION III -- PERFORMANCE AND PROCESS OBJECTIVES

1. Administration

Program Coordinators

1. The program coordinators will organize and maintain an accountability file and provide copies of all evaluation data to support the achievement of all project objectives.

Documentation: accountability files maintained in the project office

Elementary Principals

1. By November 28, 1980, the principal of each elementary school served by the project shall monitor the joint activities of the project teachers and classroom teachers. He/she will visit classrooms to assure that Title I students are receiving direct instruction in mathematics from the classroom teacher as well as from the Title I teacher.

Documentation: report of supervision of the Title I program submitted by December 5, 1980 to the Executive Director of Elementary Education (public) or the Superintendent Des Moines Diocese (nonpublic) via the Elementary Title I mathematics coordinator

2. Students

1. At the end of the instruction year, Title I students (grades 2-8) enrolled in the mathematics program for a minimum of four months will demonstrate an increase in the mean percentile rank from pre- to post-test on the mathematics test of the Metropolitan Achievement Survey Battery (1978).

Documentation: Metropolitan Achievement Test scores submitted to the Director of Evaluation at the end of the project year

2. At the end of the instruction year, first grade students enrolled in the mathematics program at least four months will attain scores on the mathematics test of the Metropolitan Achievement Survey Battery such that:
 - (a) no more than 20% of the students will achieve a percentile rank of less than twenty-two;
 - (b) at least 25% of the students will achieve a percentile rank of fifty or greater;
 - (c) the average raw score will be equivalent to at least the fortieth percentile

Documentation: Metropolitan Achievement Test scores submitted to the Director of Evaluation at the end of the project year

3. At the end of the instruction year students (grades 2-6) enrolled in the mathematics program for at least four months will demonstrate a proficiency on the mathematics test of the Metropolitan Achievement Survey Battery such that:

- (a) no more than 25% of the students will show an NCE (Normal Curve Equivalent) change of less than 1.0;

- (b) the average gain by grade in NCEs will be at least 7.0

Documentation: Metropolitan Achievement Test scores submitted to the Director of Evaluation

4. At the end of the instruction year students (grades 7-8) enrolled in the mathematics program for at least four months will demonstrate a proficiency on the mathematics test of the Metropolitan Achievement Survey Battery such that:

- (a) no more than 25% of the students will show an NCE change of less than 1.0;

- (b) the average gain by grade in NCEs will be at least 7.0

Documentation: Metropolitan Achievement Test scores submitted to the Director of Evaluation

5. At the end of the instruction year, students (grades 2-8) enrolled in the mathematics program for at least four months will achieve an average raw score equivalent to at least the thirtieth percentile.

Documentation: Metropolitan Achievement Test scores submitted to the Director of Evaluation at the end of the project year

6. Students (grades 1-8) enrolled in the program a minimum of four months will exhibit knowledge of mathematics concepts and computation by mastering of 80% of the objectives presented to them.

Documentation: a completed Student Record Folder for each student served on file in each building and the Semester Summary Report submitted to the project coordinators at the end of each semester

7. By the end of the project year, public school students (grades 7-8) enrolled in the program for a minimum of four months will display a more positive attitude toward learning than they displayed at the time of their entrance into the program.

Documentation: pre- and post- attitude toward learning inventory submitted to the Director of Evaluation at the end of the project year

8. During the project year, public school students (grades 7-8) enrolled in the program for a minimum of four months will respond positively to the program as indicated by their rate of attendance being equal to or greater than that of all students in the same schools.

Documentation: Semester Summary Report submitted with the May accountability data to the Secondary Coordinator and Director of Evaluation

9. At the end of the project year, 50% of public school students (grades 7-8) enrolled in the program a minimum of four months will have written with the staff and completed at least two contingency contracts relating to math assignments and/or behavioral changes.

Documentation: list of students with the number and kinds of contracts completed, submitted to the Secondary Coordinator and Director of Evaluation at the end of the project year

3. Instructional Staff

Elementary and Secondary Title I teachers

1. The project teacher(s) in each building served by the program will identify eligible student participants by September 12, 1980.

Documentation: class lists of identified students and the needs assessment check list submitted to the project coordinator with the September accountability data

2. Project teachers will develop and maintain an Educational Plan for each Title I student receiving mathematics service.

Documentation: Educational Plans on file with each project teacher

3. Project teachers will instruct a maximum of 40 students. Students will receive a minimum of 100 minutes of instruction weekly, with the time being equal to at least half of the regular mathematics time for the particular grade level.

Documentation: mathematics schedule submitted to the appropriate coordinator by September 17, 1980 and resubmitted each time a schedule change is made

4. By the end of the first semester, project teachers will have personal contact with parents of at least 80% of the total number of students (grades 1-6) enrolled in the program for a minimum of 20 days. The parents of 65% of students new to the program will be visited in their homes.

Documentation: parent contact report on the semester summary submitted to the appropriate project coordinator, the building principal, and the Department of Evaluation with the January accountability data

5. By the end of the first semester, project teachers will have personal contact with parents of at least 65% of the total number of students (grades 7-8) enrolled in the program for a minimum of 20 days. The parents of 25% of students new to the program will be visited in their homes.

Documentation: parent contact report on the semester summary submitted to the appropriate project coordinator, the building principal, and the Department of Evaluation with the January accountability data

6. By the end of the second semester each project teacher will have had personal conference (at home, school, or by telephone) with the parent(s) of at least 80% of the total number (grades 1-3) of students whom he/she has served during the second semester.

Documentation: parent contact report on the semester summary report submitted to the appropriate project coordinator, the building principal, and the Department of Evaluation with the May accountability data

4. Social Worker

1. During the project year, the social worker (contracted from Diocese) will counsel with Title I students referred by non-public school staff.

Documentation: record of the number of counseling sessions listed on the social worker's monthly log, submitted to the Elementary Title I Mathematics Coordinator

2. During the project year, the social worker (contracted from Diocese) will counsel with the parents of Title I students concerning school-related problems.

Documentation: record of the number of contracts on the social worker's log, submitted monthly to the Elementary Title I Mathematics Coordinator

7. By the end of the project year, public school students (grades 7-8) enrolled in the program for a minimum of four months will display a more positive attitude toward learning than they displayed at the time of their entrance into the program.

Documentation: pre- and post- attitude toward learning inventory submitted to the Director of Evaluation at the end of the project year

8. During the project year, public school students (grades 7-8) enrolled in the program for a minimum of four months will respond positively to the program as indicated by their rate of attendance being equal to or greater than that of all students in the same schools.

Documentation: Semester Summary Report submitted with the May accountability data to the Secondary Coordinator and Director of Evaluation

9. At the end of the project year, 80% of public school students (grades 7-8) enrolled in the program a minimum of four months will have written with the staff and attained at least one goal related to math assignments and/or behavioral changes.

Documentation: list of students with the number and kinds of goals attained, submitted to the Secondary Coordinator and Director of Evaluation at the end of the project year

3. Instructional Staff

Elementary and Secondary Title I teachers

1. The project teacher(s) in each building served by the program will identify eligible student participants by September 12, 1980.

Documentation: class lists of identified students and the needs assessment check list submitted to the project coordinator with the September accountability data

2. Project teachers will develop and maintain an Educational Plan for each Title I student receiving mathematics service.

Documentation: Educational Plans on file with each project teacher

3. Project teachers will instruct a maximum of 40 students. Students will receive a minimum of 100 minutes of instruction weekly, with the time being equal to at least half of the regular mathematics time for the particular grade level.

Documentation: mathematics schedule submitted to the appropriate coordinator by September 17, 1980 and resubmitted each time a schedule change is made

4. By the end of the first semester, project teachers will have personal contact with parents of at least 80% of the total number of students (grades 1-6) enrolled in the program for a minimum of 20 days. The parents of 65% of students new to the program will be visited in their homes.

Documentation: parent contact report on the semester summary submitted to the appropriate project coordinator, the building principal, and the Department of Evaluation with the January accountability data

5. By the end of the first semester, project teachers will have personal contact with parents of at least 65% of the total number of students (grades 7-8) enrolled in the program for a minimum of 20 days. The parents of 25% of students new to the program will be visited in their homes.

Documentation: parent contact report on the semester summary submitted to the appropriate project coordinator, the building principal, and the Department of Evaluation with the January accountability data

6. By the end of the second semester each project teacher will have had personal conference (at home, school, or by telephone) with the parent(s) of at least 80% of the total number (grades 1-8) of students whom he/she has served during the second semester.

Documentation: parent contact report on the semester summary report submitted to the appropriate project coordinator, the building principal, and the Department of Evaluation with the May accountability data

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3. During the project year, the social worker (contracted from Diocese) will consult with non-public school staff to coordinate efforts in dealing with the referred students' problems.

Documentation: record of contacts on the social worker's monthly log, submitted to the Elementary Title I Mathematics Coordinator

5. Associates

1. During the project year, Title I associates working under the direction of the math teachers, will reinforce the teachers' instruction, prepare materials, and perform clerical duties.

Documentation: Monthly Summary of Associate Duties, signed by the Title I Math teacher, submitted to the program Coordinator with the monthly accountability data

6. Family

1. Near the end of the project year a 10% random sample of parents of identified elementary students will respond positively to the project activities.

Documentation: a summary of responses obtained by the project coordinator on the parent opinionaire

A P P E N D I X C

Mathematics Survey Test
Pre and Posttest Percentile Ranks by School and Grade

Mathematics Survey Test
Percentile Post Gains
Grades 2-8

School	Grade 2				Grade 3				Grade 4				Grade 5				Grade 5				Grade 7				Grade 8			
	N	Pre	Post	Gain	N	Pre	Post	Gain	N	Pre	Post	Gain	N	Pre	Post	Gain	N	Pre	Post	Gain	N	Pre	Post	Gain	N	Pre	Post	Gain
All Saints									3	14	30	-4																
Brooks	14	15	46	28	11	32	56	24	19	28	36	8	10	14	20	6	7	16	30	14								
Casady	17	8	24	16	13	14	38	24																				
Conlay	7	26	24	-2	22	23	26	3	9	30	20	-10	5	30	24	-6	3	50	42	-8								
Edwards									24	28	44	16	24	30	38	8	19	30	50	20								
Findley	12	34	60	26	9	18	60	42	4	8	22	14	4	18	46	28	6	40	74	34								
Garton	11	14	32	18	16	18	42	24	13	22	23	1	18	34	46	12	25	26	40	14								
Jefferson	31	22	46	24	13	16	52	36																				
King	23	18	24	6	18	23	36	13																				
Longfellow	10	18	40	22	11	34	38	4	4	46	66	20	4	26	38	12	2	14	34	20								
Lucas	6	26	40	14	5	18	38	20	14	18	28	10																
Madison	12	34	46	12	5	34	32	-2	10	34	30	-4	4	30	32	2												
McKinley					6	22	38	16	3	34	52	18					1	18	62	44								
Mitchell	5	11	14	3	12	18	32	14	8	16	30	14																
Monroe									11	28	30	2	13	18	34	16	11	23	36	13								
Moore	3	34	36	2	1	54	22	-32	4	30	36	6																
Moulton	15	18	40	22	20	14	32	18	15	20	30	10	11	30	46	16	14	18	36	18								
Oak Park	9	22	40	18	9	23	36	13	7	24	34	10	5	22	32	10												
Perkins									23	24	30	6	18	14	20	6	15	23	30	7								
Phillips	7	18	40	22	9	18	44	26	8	20	30	10	2	22	22	0	5	10	26	16								
St. Anthony	2	38	64	26	5	42	66	24	6	28	44	16					3	30	34	4								
St. John	7	14	44	30	10	28	60	32	6	36	48	12	8	22	64	42												
St. Peter	3	18	40	22	6	18	26	8	5	12	28	16	2	18	24													
Visitation																	8	40	54	14	7	22	40	18	2	4	11	7
Wallace	3	30	18	-12	9	16	20	4	7	34	28	-6	10	22	38	16	5	20	26	6								
Willard	5	14	18	4	5	14	32	18	16	20	30	10					4	32	34	2								
Cillanan																					23	14	36	22	12	10	32	22
Harding																					33	14	30	16	17	16	38	22
Hiatt																					27	26	30	4	7	14	26	12
Weeks																					27	22	26	4				
Total	205	18	40	22	204	22	38	16	219	24	34	10	138	22	34	12	125	26	40	14	120	18	30	12	38	12	32	20

A P P E N D I X D
Self-Anchoring Attitude Scale

PRE-TEST INSTRUCTIONS

INSTRUCTIONS FOR THE ADMINISTRATION OF SAAS: SELF-ANCHORING ATTITUDE SCALE (TOWARD LEARNING)

INTRODUCTION

The Self-Anchoring Attitude Scale (Toward Learning) is an inventory designed to assess attitudes toward learning of individuals in Grade 5 through adult. SAAS is unique in that each individual is asked to describe the end-points of the dimension under examination -- in this case attitude toward learning. This self-defined continuum is then used as a measuring device with no further verbal cues.

DIRECTIONS

Check that all students have a pencil or a pen and one blank sheet of paper. To get off to a good start, it is suggested to say something like this.

"Today I am going to ask you about students who like to learn and students who dislike to learn. I am interested in your ideas. This is not a test. There are no right or wrong answers.

Not all students are the same. You may feel that some enjoy learning more than others. You may know students who like to learn and students who do not like to learn. Without saying anything to each other, spend the next 3-5 minutes thinking of what you would say about students who like to learn. To help you remember your ideas, write them down on the sheet of paper in front of you."

Allow 3-5 minutes for the students to complete this. When you are satisfied that they are finished, ask them to spend the next few minutes thinking of what they would say about students who dislike to learn. They can use the other side of the paper to jot down their ideas.

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When they are finished, distribute the SAAS form to each student with the "ladder" side showing. Ask them to write their ideas for "Students Who Like to Learn" at the top of the page in the space provided and their ideas for "Students Who Dislike to Learn" at the bottom of the page.

After all students have finished writing, say to the students:

"At the left side of your paper is a picture of a ladder. Your description of students who like to learn is located at the top of the ladder and your description of students who dislike to learn is at the bottom.

You may be at the top of the ladder -- that is, a student who likes to learn. Or you may be at the very bottom of the ladder -- a student who dislikes to learn. Quite possibly you are somewhere in between those who like to learn and those who dislike to learn.

Take your pencil and mark an "X" on the rung of the ladder where you think you are right now."

When you are satisfied that all students have finished, ask them to write in their name, school, grade, and the day's date in the space provided above the ladder. Also, have them write in their name in the top right hand corner of the form in the space provided.

Collect all the SAAS forms.

POST-TEST INSTRUCTIONS

INSTRUCTIONS FOR THE POST-TEST ADMINISTRATION OF SAAS: SELF-ANCHORING ATTITUDE SCALE (TOWARD LEARNING)

INFORMATION ABOUT SAAS

The Self-Anchoring Attitude Scale (Toward Learning) is an inventory designed to assess attitudes toward learning of individuals in Grade 5 through adult. SAAS is unique in that each individual is asked to describe the end-points of the dimension under examination -- in this case attitude toward learning. This self-defined continuum is then used as a measuring device with no further verbal cues.

DIRECTIONS

Check that all students have a pencil. Return the green SAAS form to the student who is identified on the form. The student's "fall rating" (the ladder having the student's first rating) should not be returned.

After all students have their original copy of the green SAAS form, say to the students:

"Last fall you described students who liked to learn and wrote that at the top of the page. You, also, described students who disliked to learn and you wrote that at the bottom of the page.

Read these descriptions. You may be like the student at the top of the page -- you may be like the student at the bottom of the page -- or you may be somewhere in between those who like to learn and those who dislike to learn.

Take your pencil and mark a X on the rung of the ladder where you think you are right now.

If you would like to write more about students who like to learn or students who dislike to learn, please do so. Write those comments and today's date beside any comments you add.

When you are satisfied that all students have finished, ask them to write their name, school, grade and the day's date in the space provided above the ladder.

Collect all the SAAS forms.

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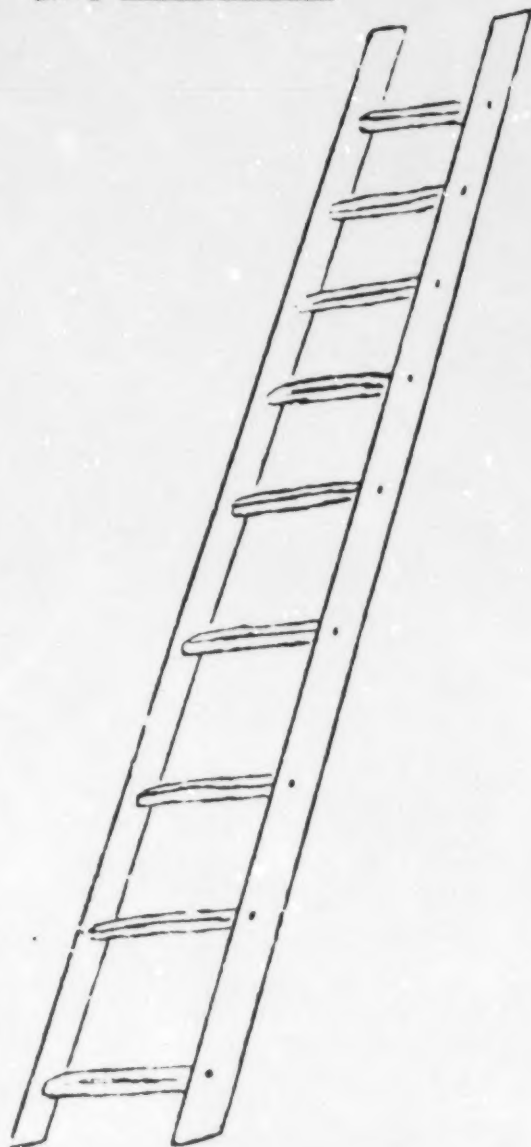
STUDENTS WHO LIKE TO LEARN

NAME _____

SCHOOL _____

GRADE _____

DATE _____



STUDENTS WHO DISLIKE TO LEARN

NAME _____

SCHOOL _____

GRADE _____

DATE _____

